

Executive Summary



In the spring of 2019, OIRM underwent a government-mandated external review, which was conducted by an international panel of experts (the Panel) in the area of regenerative medicine (RM). Five key themes were highlighted by the Panel, indicating OIRM's capacity to deliver on its strategic plan within its first four years (2015-2019) by:

1

Demonstrating a **high level of productivity** with the Panel recommending that **continuing support should be provided**

2

Developing **significant economic and health impacts** within a short timeframe

3

Establishing and nurturing **a unique ecosystem** for RM in Ontario

4

Filling gaps in the translational landscape of RM, indicating OIRM has a distinct mission and it fulfils a critical role

5

Delivering on all aspects of its strategic plan on an **efficient budget**

1 Given OIRM's limited budget (\$5M/year) and a team of only five FTE, the Panel was impressed by its **PRODUCTIVITY**, including:

Substantially leveraging provincial funding (\$22M) by almost seven-fold (\$148M) through national and international engagement

Increasing the number of clinical trials in the province from five to 16 through partnership and collaboration (six completed trials; four active and six pending)

Operating as a contract research organization by providing connections to expertise, pre-clinical modelling work, regulatory mentorship, data monitoring strategies, robust clinical trial design and identifying other sources of funding

2 The Panel identified several ways that OIRM contributes to economic and health impact in Ontario by investing \$11M in disease areas of unmet need and:

Supporting seven teams of researchers and progressing these technologies into early stage clinical trials in 2020-2021, bringing potentially curative therapies to patients

Identifying and investing in four company creations in Ontario, including,
 The critical proof of concept research that enabled an investment of \$225M in BlueRock Therapeutics (2016) and eventual buyout by Bayer AG for \$1B (2019)
 A T-cell technology leading to the creation of Notch Therapeutics (2018) and investment of \$10M by Allogene (2019)

Playing a key role in supporting the more than 40 RM companies in Canada, tapping into Toronto's growing talent pool

3 The Panel was impressed with how much OIRM contributes to the community-building and the creation of a unique RM ecosystem in Ontario by:

Fostering a multi-disciplinary ecosystem and continually attracting new researchers into the field, creating a network of over 275 research programs supported by over 2,220 HQP

Investing over \$3M in discovery level research to fuel the translational pipeline

Nurturing the next generation of researchers through the provision of funding and establishing intra-institution networks to stimulate new research interactions, workshops and HQP engagement

4 Accelerating translation by filling critical gaps that are an integral part of the research pipeline and the Panel was very complimentary of how OIRM facilitates this work by:

Providing funding and expertise to pre-clinical research that is not typically supported by traditional funding agencies, such as regulatory approval and cell manufacturing

Supporting early phase cell therapy trials, essentially de-risking technologies for subsequent private sector investment

Building strong collaborations with national and international networks and bringing committees of experts together to further develop the technologies and provide strategic advice

5 Delivering on all aspects of the strategic plan on an efficient budget, the panel noted OIRM's focus on partnerships that have been a key driver of their success by:

Participating in over 100 partnerships, OIRM continues to bring value and critical resources to its ecosystem

Operating in a capital efficient framework by partnering with research institutes and universities and leveraging core cell manufacturing facilities, research infrastructure and in-house expertise

Maximizing a lean operational footprint of 11% (\$2.8M/\$25.5M), allowing for key funding to flow in support of the technology pipeline and ecosystem

For all of these reasons, the Panel was pleased with OIRM's progress thus far and supported its continued funding by the Government of Ontario. The Panel provided recommendations that are greatly supportive of OIRM's past and anticipated future directions. OIRM continues to support the RM ecosystem in Ontario and is currently developing a partnered funding model to sustain this activity.

